

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Animal Abstract

Element Code: ABNQA08010

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Rhynchopsitta pachyrhyncha*

COMMON NAME: Thick-billed Parrot

SYNONYMS: *Macrocerus pachyrhynchus*

FAMILY: Psittacidae

AUTHOR, PLACE OF PUBLICATION: *Macrocerus pachyrhynchus* Swainson. 1827.
Philos. Mag., new ser., 1, no. 6, p. 439.

TYPE LOCALITY: Table land, Mexico.

TYPE SPECIMEN:

TAXONOMIC UNIQUENESS: Only surviving parrot species native to the continental United States.

DESCRIPTION: Thick-billed Parrots are 15-16.5 in. (38-42 cm) long, chunky and are a dull olive-green with red at the bend of their wings and on the lower thighs. They also have a red forehead, black bill, and red eyebrow. Their tail is long and pointed. The legs and feet are gray and there is no sexual dimorphism. They have a gray or bright yellow under wing patch that shows in flight. Their wingspan is 32 inches (81.3 cm) and they weigh 15 oz (425.3 g). Juvenile birds have largely white upper mandibles, a dark iris, reduced red on the thighs and a lack of red superciliary stripes, wing bends and carpal edges. Their flight is rapid and wing beats are shallow.

AIDS TO IDENTIFICATION: Immature birds lack red eyebrow, and the bill is light buff. Known for their loud screeching. They are different from Maroon-fronted Parrots (*Rhynchopsitta terrisi*) from having a red forehead and being slightly smaller.

ILLUSTRATIONS: Color photo (Terres 1980)
Color drawing (Sibley 2000)
Color photo (*In* http://www.thebigzoo.com/animals/zoom/Rhynchopsitta_pachyrhyncha_001.asp)
Color photo (*In* : <http://www.mangoverde.com/birdsound/picpages/pic74-189-1.html>)
Color photo (*In* <http://www.thewildones.org/animals/thickbill.html>)

Color photo

(<http://www.worldparrottrust.org/wpt12/thickbilledparrot.htm>)

Color photo of nestling

(<http://www.worldparrottrust.org/wpt12/thickbilledparrot.htm>)

Color photo (O'Brien 1992)

TOTAL RANGE: Breeds in the mountains of Chihuahua and Durango, Mexico. Historically from southeastern and eastern central Arizona.

RANGE WITHIN ARIZONA: No naturally occurring populations remain in Arizona. Reintroduction efforts in the Chiricahua Mountains, Cochise County, occurred in the 1980's. Successful breeding by one pair occurred in 1988 in the Chiricahua's. Attempts to maintain this flock was terminated in 1993, due to an excessive mortality rate among the ill-adapted released birds, many of which were predated on by Northern Goshawks. The flock persisted until at least 1995, perhaps later. The number of remaining introduced birds is unknown. Historically, summer dispersal of these birds had been seen as far north as Flagstaff and Payson, along the Mogollon Rim..

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: Hand reared birds have been unsuccessful at foraging, flocking, and avoiding predators in the wild. Parent-reared birds hatched in captivity have had greater success. Wild birds released in southeastern Arizona migrate north to central Arizona. This pattern matches the northward migration of birds in Mexico. It may be possible to establish a nonmigratory flock using captive bred birds if the migratory behavior is learned rather than innate. Flocks formed by the parrots may have a minimum size needed for breeding and protection from predators. Known predators include various raptors (e.g. Goshawk) and ringtails. Calls from the flock are earsplitting and can be heard for half a mile. Flocks have a habit of following anyone traveling through their home forests and keeping up such an uproar, that it drives off or alerts the wild animals naturalists may be seeking. They often fly in a V or a line formation.

REPRODUCTION: Nests in a cavity 6-7 inches in diameter in a tall dead pine tree, sometimes dug by a nearly extinct woodpecker (Imperial Ivory-billed woodpecker), which is limited to the highest and remotest parts of the Sierra Madre, Mexico. Laying and incubation of 2-4 eggs occurs between mid June and late July. The eggs are white and the female performs the incubation for 24-28 days. Newly hatched chicks are nearly naked, with only a sparse covering of white down, and their eyes are closed. The female performs brooding and feeding of nestlings; the male brings food to the nest. Fledging of 1-3 young occurs about two months after hatching between early September and late October.

FOOD HABITS: Thick-billed Parrots feed primarily on pine seeds by tearing open the cones with their heavy bills. Chihuahua pine appears to be an especially reliable food source.

Chihuahua pine produces cones nearly every year. Also, seeds are available almost all year because the cones are slow to open. They have also been observed eating buds, acorns and juniper fruits. An interesting component of their diet is tree bark; reasons for eating tree bark are unknown.

HABITAT: Highland pine-oak forests. Nomadic in response to variation in cone crop, requires extensive areas of suitable habitat. Roosts in densely crowned trees or on cliffs. In Arizona, the conifer species of the greatest importance include Chiricahua, ponderosa and Arizona pines.

ELEVATION: 6,000 - 9,000 ft. (1,830 - 2,745 m).

PLANT COMMUNITY: Rocky Mountain and Madrean montane coniferous forests.

POPULATION TRENDS: Formerly bred north to south-central and southeastern Arizona. The last large flock in the Chiricahua Mountains was in 1918. The last reliable reports were in 1935 and 1938. Survives in the highland pine forests of the Sierra Madres. At least one pair from reintroduction efforts in the 1980's, successfully bred in central Arizona in 1988. In 2000, it was believed that at least part of the Mexican population was increasing, and the species may expand its range into Arizona once again. (NatureServe 2002).

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS:
STATE STATUS:

None
WSC (AGFD, WSCA in prep)
[State Endangered AGFD, TNW 1988]
Not Forest Service Sensitive (USDA, FS
Region 3 1999)
[Forest Service Sensitive (USDA, FS
Region 3 1988)]
Determined Endangered (Mexican Federal
Endangered Species List, 2000)

OTHER STATUS:

MANAGEMENT FACTORS: Thick-billed Parrots do not raid agricultural crops, but utilize pine forests for food and shelter. Large pines, both live and dead, are used for nest cavities. The greatest management need is protection of nest sites (large trees). Forest management practices should be modified to leave some suitable trees throughout the forest as potential nest sites. The Thick-billed Parrot is threatened in Mexico by deforestation and harvesting for illegal trade. Thick-billed Parrots can be sold for about \$1500.

PROTECTIVE MEASURES TAKEN: Reintroduction effort started in 1986 using confiscated birds. Attempts to maintain the reintroduced flocks were terminated in 1993 due to an excessive mortality rate among the ill adapted released birds. Captive breeding for reintroduction is underway at the Tyson Research Center in Missouri, and the Aviculture Breeding and Research Center in Florida. Illegally possessed birds may be donated through

an amnesty program. Recently an agreement was signed between the Ejidotutuaca, the Wildlands Project, Pronatura and Naturalia creating a 15 year moratorium on any cutting of timber in a region of southern Chihuahua that hosts the most important remaining nesting habitat of the Thick-billed Parrot. More than 100 active nests have been found in the region in recent years and it may represent more than 10% of the total breeding population. There is also a ban on the cutting of Spruce, Douglas fir and Abies fir throughout the Sierra. These are trees that often serve as nest sites for the parrots.

SUGGESTED PROJECTS: Studies relating to the Thick-billed Parrot's wintering habitat and range need to be performed. As well as surveys of nesting and potential nesting areas need to continue to allow identification and conservation of the most crucial areas of habitat for this species.

LAND MANAGEMENT/OWNERSHIP:

SOURCES OF FURTHER INFORMATION

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MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION:

Thick-billed Parrots are locally known as "guacas" or "guacamayas".

Suffered massively from shooting in the U.S. and were essentially gone from the U.S. territory by 1920. Their garrulousness, relatively large size and tame inquisitive behavior made them easy targets for sustenance hunting prospectors and other early settlers.

Revised: 1992-01-28 (JGH)
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2003-06-10 (AMS)

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